

(19) World Intellectual Property Organization International Bureau



1 CONTRA NICOLO DE SELO CONTRA CO

(43) International Publication Date 29 December 2004 (29.12.2004)

PCT

(10) International Publication Number WO 2004/112889 A3

(51) International Patent Classification⁷:

A61N 7/00

(21) International Application Number:

PCT/US2004/019498

(22) International Filing Date: 18.

18 June 2004 (18.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/479,416

18 June 2003 (18.06.2003) US

- (71) Applicant (for all designated States except US): THE REGENTS OF THE UNIVERSITY OF CALIFORNIA [US/US]; 1111 Franklin Street, 5th floor, Oakland, CA 94607-5200 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): CHANDRARATNA, Premindra, Anthony, Nirmal [US/US]; 30932 Marne Drive, Rancho Palos Verdes, CA 90275 (US).
- (74) Agent: BUYAN, Robert, D.; Stout, Uxa, Buyan & Mullins, LLP., 4 Venture, Suite 300, Irvine, CA 92618 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report: 17 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ULTRASOUND DEVICES AND METHODS FOR TREATING ISCHEMIA AND OTHER CARDIOVASCULAR DISORDERS

(57) Abstract: Therapeutic ultrasound devices and methods are provided. The device (10) generally includes a substrate, for example, a flexible substrate (14), and multiple, individual transducer elements (16a, 16b, 16c) disposed on a face (18) of the substrate (14). The device may be provided as a part of an ultrasound system for that includes a generator unit and a controller including drive electronics. The device and method is especially useful for the treatment of ischemia and hypoxia using ultrasound levels that are generally no greater than those used for diagnostic purposes.

